ROLLED PRODUCTS

- The following nomenclature is in common usage:

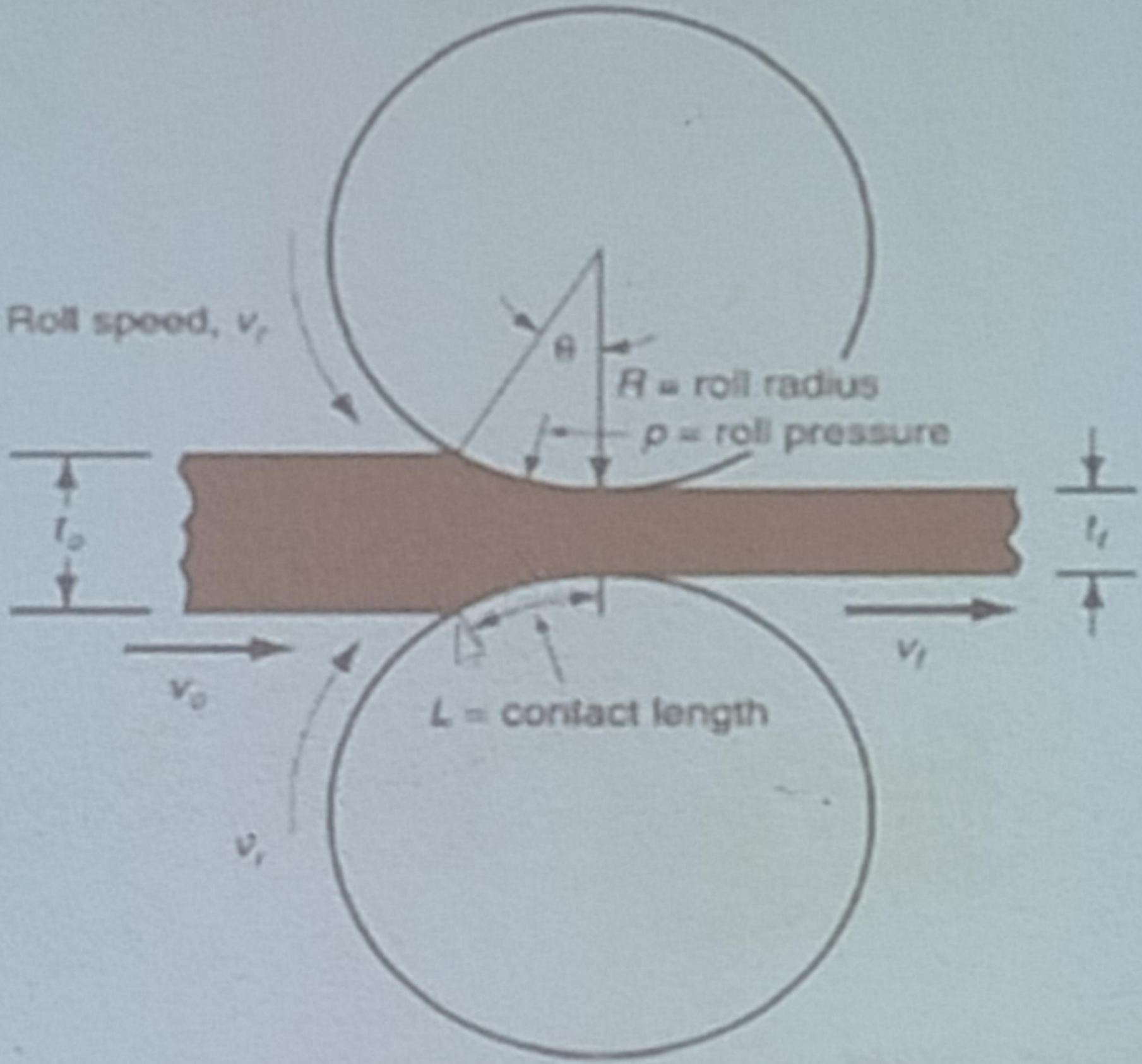
- **Blooms:** It is the first product obtained from the breakdown of Ingots. A bloom has a crosssection ranging in size from 150 mm square to 250 mm square or sometimes 250 × 300 mm rectangle.
- **Billet:** A billet is the next product rolled from a bloom. Billets vary from 50 mm square to 125 mm square.
- **Slab:** Slab is of rectangular cross-section with thickness ranging from 50 to 150 mm and is available in lengths up to 112 metres.
- **Plate:** A plate is generally 5 mm or thicker and is 1.0 or 1.25 metres in width and 2.5 metres in length.
- **Sheet:** A sheet is up to 4 mm thick and is available in same width and length as a plate.

(i) **Flat:** Flats are available in various thickness and widths and are long strips of material of specified cross-section.

(ii) **Foil:** It is a very thin sheet.

(i) **Bar:** Bars are usually of circular cross-section and of several metres length. They are common stock (raw material) for capstan and turret lathes.

(ii) **Wire:** A wire is a length (usually in coil form) of a small round section; the diameter of which specifies the size of the wire.


Roll speed, v_r
θ
R = roll radius
p = roll pressure
t_o
t_f
v_o
v_f
L = contact length
v_r

- Equipment is massive and expensive

- Rolling mill configurations:

  - Two-high: two opposing rolls
  - Three-high: work passes through rolls in both directions
  - Four-high: backing rolls support smaller work rolls
  - Cluster mill: multiple backing rolls on smaller rolls
  - Tandem rolling mill: sequence of two-high mills